

REMARKS

Before entry of this Response, claims 1-26 were pending in the application. Claims 21-26 were previously withdrawn. After entry of this Response claims 1-20 remain pending under examination. The number of total claims has not been increased, and the number of independent claims has not been increased beyond the number for which payment previously had been made.

Applicants have considered the Final Examiner's Action of February 22, 2008, and the references cited therein. The following is a brief summary of the Action. Claims 1-11 and 13-20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Dobrin et al (USP 6,383,431) in view of Weber et al (USP 5,143,679) and Boger et al (USP 4,874,451). Claim 12 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Dobrin et al, Weber et al and Boger et al, and further in view of Morman et al (U.S. Publication 2002/0119288A1).

For the reasons explained below, applicants respectfully traverse the rejection of claims 1-11 and 13-20 under 35 U.S.C. § 103(a) over Dobrin et al in view of Weber et al and Boger et al.

Referring to the disclosure of the Dobrin et al reference, the 2-22-08 Final Office Action states at lines 11 – 22 of paragraph 2 on pages 2 – 3, thereof (emphasis added):

The reference does not disclose forming successive nips between the first roll and multiple second rolls with fins. Weber et al. discloses stretching a **laminat**e using multiple rolls with ribs which interact with a single roll with grooves. This use of multiple rolls reduces the rate at which the stretching of the laminate is carried out, reducing the strain on the web and causing **less damage to the laminat**e than the use of a single roll pair. (Col. 17, ll. 57-Col. 18, ll. 16) It would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the single roll

pair of first and second roll in Dobrin et al. with multiple roll pairs formed from separate second rolls interacting with the same first roll since this would reduce the strain on the first web as it is stretched and **cause less damage** to the web than the use of the single roll pair of Dobrin et al. (Col. 17, ll. 57-Col. 18, ll. 16)

However, applicants respectfully submit that the person of ordinary skill is not going to apply such teachings of Weber et al to a process like Dobrin et al. As explained at column 9, lines 10 – 38 of Dobrin et al, Dobrin et al pertains to a **non-woven** web 5 that is placed **under tension** in the direction of web movement as the web is passed through the nip between the forming rolls 8, 9. In contrast to Dobrin et al, Weber et al applies to an **untensioned**, intermittently bonded, zero-strain stretch **laminate** web. Weber et al Col. 18, ll. 17 – 20.

Thus, Weber et al fails to use a **nonwoven** web. Nor does Weber et al place the web under **tension** in the direction of web movement as the web is passed through the nip between the forming rolls. These two differences alone render the Weber et al teachings inapplicable to a process like Dobrin et al.

As explained at column 7, lines 29 – 54 of Dobrin et al, the web 5 is passed between opposed forming rolls 8, 9 that have teeth 22 whose vertices or outermost tips:

are preferably rounded, as shown in greater detail in FIGS. 3 and 4, to avoid cuts or tears in the materials, such as nonwoven web 5, that pass between the rolls.

Thus, in addition to being inapplicable to a **nonwoven** web kept **under tension** in the direction of web movement, Weber et al fails to use forming rolls with rounded tips to avoid cuts and tears in the materials. As quoted above, Dobrin et al already places less strain on the web by virtue of the rounded tips on rolls 8, 9. Weber et al column 17, line 57 through column 18, line 16 does not say that stretching a laminate using multiple

rolls with sharp-verticed ribs which interact with a single roll with mating sharp-verticed grooves as in Weber et al is better at causing less damage to the laminate than Dobrin et al's use of a single roll pair with rounded tips. Why then would the person of ordinary skill employ Weber et al rolls with hand-in-glove mating sharp edged vertices in contradiction to Dobrin et al.

Moreover, Weber et al fails to provide a plurality of mating surfaces having fins that are positioned to fit within the grooves of forming surfaces. Instead, Weber et al provides successive pairs of meshing corrugated rolls, which have opposed surfaces with sharp edged vertices that fit hand-in-glove and thus leave no space between them.

Lines 3 – 12 of paragraph 4 on pages 5 – 6 of the 2-22-08 Final Office Action state (emphasis added):

Regarding applicant's argument that Weber et al. does not disclose a plurality of mating surfaces having fins that fit within the grooves of the forming surface, applicant's own specification describes this in the same manner as Weber et al and **the Figures are the same**. Examiner is uncertain as to what applicant's mating surfaces, etc. look like if they are not as in Figure 3 of the specification, which is **similar** to Figure 2A of Weber et al. Each of the corrugating rolls 24b and 25 have fins that are positioned to enter grooves on the forming surface 23 at separate locations. The two corrugating rollers comprise a "plurality", each with fins which fit into the grooves on the forming surface. The claim does not require the fins to extend around the entire circumference of the roller as the claim does not even require rollers.

However, the meshing surfaces 23, 24a in Weber et al FIG. 2B and 23, 24b in Weber et al FIG. 2C formed on the surfaces of the Weber et al corrugated rolls 25, 27 are manifestly different than the surfaces of the fins 610 shown in applicants' FIG. 4. The meshing surfaces 23, 24a (Weber et al FIG. 2B) and 23, 24b (Weber et al FIG. 2C)

formed on the surfaces of the Weber et al corrugated rolls 25, 27 are configured to touch along all surfaces but for the presence of the web 1 between them. The surfaces 208, 210 of the rolls 204, 206 in applicants' FIGS. 3 and 4 would not fit hand-in-glove-like but for the web 620 between them. That is why Weber et al cannot be deemed to disclose rolls with mating surfaces that have fins fitted within grooves.

Additionally, the 2-22-08 Final Office Action's contention of obviousness is negated by the particular circumstances of the Dobrin et al reference and the Weber et al reference. The Weber et al reference is assigned to the Proctor & Gamble Company and issued in September 1992. The Dobrin et al reference also is assigned to the Proctor & Gamble Company and issued 10 years later in 2002, based on an application filed in 1999. Moreover, the inventors of the Dobrin et al reference cited the Weber et al reference, and thus the Dobrin et al inventors were aware of the disclosure of the Weber et al reference. Nonetheless, as admitted by the Office Action, Dobrin et al failed even to disclose forming successive nips between the first roll and multiple second rolls with fins. Thus, the 2-22-08 Final Office Action's contention that to do so was obvious to the person of ordinary skill is refuted by the fact that the Dobrin et al inventors, who are persons of greater than ordinary skill because they themselves were inventors, failed to appreciate the desirability of the formation of successive nips between the first roll and multiple second rolls with fins in the context of the Dobrin et al invention. Because the Office ignores these indisputable facts in arriving at the 2-22-08 Final Office Action's conclusion of obviousness, that conclusion must be deemed clearly erroneous.

At lines 12-14 on page 6 of the 2-22-08 final Office Action, it is contended that:

The fact that a group of inventors failed to envision a combination does not mean that other skilled in the art when presented with the references would not have envisioned the combination.

This statement misses the point in the following respects. First, it is not merely others **skilled in the art** that provides the standard of comparison. The standard is persons of **ordinary skill** in the art. Second, when it has been factually demonstrated that persons who are inventors, i.e., persons of **greater than ordinary skill** in the art, fail to appreciate applicants' claimed limitations, it becomes clearly erroneous to persist in the contention that the same claimed features would be appreciated by persons of **ordinary skill** in the art.

Furthermore, Weber et al applies to stretching a laminate material that is formed of at least two plies of material that are secured to one another along at least a portion of their coextensive surfaces wherein one of the plies is stretchable and elastomeric while the second ply is elongatable but not necessarily elastomeric. As explained at Weber et al col. 14, lines 7 – 24:

The backsheet web 5 and topsheet web 6 and the absorbent pads 3 are brought into contact with one another at combining rolls 15. Just prior to the webs and pads coming into contact with one another, additional adhesive is preferably applied to one or both webs which are, for clarity, not shown in FIG 1. The latter adhesive secures predetermined portions of the backsheet, the topsheet and the absorbent pad to one another to form the diaper web 1.

The fully assembled diaper web 1 thereafter preferably proceeds through a pair of bond setting rolls 16, which may require chilling to minimize glue bleed through.

The fully assembled diaper web 1 is then directed through an incremental web stretching employing opposed pressure applicators having three dimensional surfaces which at least to a degree are complimentary to one another

system of the present invention, which is shown only schematically as 20 in FIG 1.

Dobrin et al by contrast is concerned with stretching a nonwoven fibrous web rather than a laminate as described in Weber et al. This difference likely explains why the Dobrin et al inventors did not attempt to take any suggestion from Weber et al to use multiple second rolls with fins to form successive nips with the first roll. Such Weber et al teaching likely was deemed inapplicable to what Dobrin et al was doing. Again, the implication to be drawn from these facts clearly favors the non-obviousness of what applicants are claiming.

Lines 15 – 21 on page 6 of the 2-22-08 Final Office Action contend that:

Regarding applicant's argument that Dobrin et al. is directed to a web while Weber et al. is directed to a laminate, the fact that Weber et al. is directed to a laminate does not mean it would not be obvious to use the process with a web. The process offers the advantages of reducing the stress on the web by allowing stress redistribution to the web reducing the chance of damage to the web. This appears to be an advantage that would occur regardless of whether the material being stretched was one web or a laminate made of multiple webs bonded together.

However, the above contention ignores the law and contradicts the facts. The law requires the Office to demonstrate obviousness in the first instance rather than burdening the applicants with demonstrating non-obviousness. Moreover, it is a fact that stretching a laminate of necessity places stress on the interface between the two webs that form the laminate. Such stress affects how the stretched web of the laminate is adhered to the non-stretched web of the laminate at the interface surface. Where such adhesion is effected according to the present claims' requirement of a slot coat adhesive process, it is reasonable to believe that persons of ordinary skill would regard

such stressing of one web as presenting an overall disadvantage to the adhesion of the stretched web to the non-stretched web to form the laminate. This conclusion is further supported by the indisputable fact that the Dobrin et al inventors, while aware of Weber et al, did not advocate the Weber et al apparatus and method in any respect, not even as an alternative.

The 2-22-08 Final Office Action contends at page 3, lines 7 – 19, that (emphasis added):

Dobrin et al. discloses the adhesive is applied to the stretched web, but is silent as to the specifics of the adhesive applicator, **only indicating that such methods are well known to those in the art. (Col. 21, ll. 23-26, 48-50)** Boger et al. discloses a device for applying adhesive to a diaper via a number of slots onto specific locations on the web. (Abstract; Figure 1) This allows the accurate placement of adhesive with a relatively simple system which requires little maintenance. (Col. 2, ll. 23-31) It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a slot applicator like (sic) that of Boger et al. to apply the adhesive to the corrugated web of Dobrin et al. **since Dobrin et al. indicates well-known types of adhesive applicators can be used** and since the adhesive applicator of Boger et al. is a (sic) adhesive applicator known in the diaper arts which would allow the accurate placement of adhesive with a relatively simple system which requires little maintenance. (Col. 2, ll. 23-31)

However, Dobrin et al Col. 21, ll. 23-26, 48-50 does not indicate that well-known types of applicators can be used. There, Dobrin et al merely states that the ways that a precursor material can be joined to the nonwoven material at the Dobrin et al joiner station 13 include “thermal lamination, adhesive lamination, direct lamination by extrusion, and vacuum lamination,” and that each of **these methods** “is well known to those skilled in the art.” Dobrin et al Col. 21, ll. 23-26, 48-50 only indicates that “thermal lamination, adhesive lamination, direct lamination by extrusion, and vacuum lamination”

are “well known to those skilled in the art.” Dobrin et al does not place a slot coat adhesive process into the category of well-known types of applicators that can be used in the context of the Dobrin et al method.

Moreover, Boger et al does not disclose use of a slot coat adhesive process to apply adhesive directly to a sheet of flexible material. Thus, the 2-22-08 Final Office Action relies on applicants’ disclosure for the step of applying adhesive to a flexible sheet of material with a slot coat adhesive process.

Referring to subparagraphs g, h and i of claim 1, applicants’ method requires stretching the first flexible sheet material, applying adhesive directly to the stretched first flexible sheet material with a slot coat adhesive process and joining the stretched first flexible sheet material in a face-to-face configuration to the first surface of the second flexible sheet material. Thus, the adhesive is applied to the stretched first flexible sheet material, which thereafter is joined to the second flexible sheet material. Accordingly, the slot coat adhesive process is used to apply the adhesive directly to the stretched first flexible sheet material.

According to Boger et al, there is no indication that the substrate to which the adhesive is applied is in any way stretchable, much less stretched before the adhesive is applied. A review of Boger et al Fig.1 and the description thereof establishes no apparatus that would in any way stretch the substrate 64 before the adhesive dispensing device 10 supplies hot melt adhesive through its nozzle 20. Nor is substrate 64 stretched before being joined via the adhesive to the non-woven layer 182.

Persons of ordinary skill are unlikely to equate the use of a slot coat adhesive process to apply adhesive to an unstretched web as in Boger et al with the use of a slot

coat adhesive process to apply adhesive to a flexible sheet material that has been stretched a plurality of times. Persons of ordinary skill are likely to regard the behavior of glue on an unstretched web to differ from the behavior of glue on a flexible sheet material that has been stretched a plurality of times.

Lines 5-11 on page 7 of the 2-22-08 Final Office Action contend:

Absent evidence that one in the art would expect application of adhesive to a stretched web to somehow behave differently than application of adhesive to a non-stretched web, this would have been obvious. The desirability of the slot coater of Boger et al. is not affected by whether the web is stretched or unstretched. Examiner does not understand why one in the art would think adhesive would behave differently on a stretched web vs. an unstretched web, and applicant has not provided any evidence to support this assertion.

The first sentence of this comment impermissibly places on applicants the burden of demonstrating nonobviousness, when the statute places on the Office the burden of demonstrating obviousness. Moreover, the reason one of ordinary skill would think adhesive behaves differently on a stretched web versus the behavior of the adhesive on an unstretched web is a simple matter of differences in density and porosity between these two web configurations. See Dobrin et al column 21, lines 54 – 60. Stretching the same mass of material over a wider area of necessity decreases the density per unit area of the web and hence commensurately increases the porosity of the web. If by the above quoted passage on page 7 of the 2-22-08 Final Office Action the Office means to contend that the person of ordinary skill lacks such modest level of understanding, then that contention of the Office reinforces applicants' contention that such a person of ordinary skill would not have appreciated applicants' claimed invention.

Concerning claim 6 in particular, page 4, lines 5 – 6 of the 2-22-08 Final Office Action contends that one of ordinary skill would appreciate the specific number of teeth per inch because “both Dobrin et al and applicant are making laminates for the same purpose, i.e. use in a diaper and therefore would desire the same properties.” However, this statement puts the cart before the horse and therefore relies on hindsight rather than any specific teaching in Dobrin et al or any other reference. Thus, claim 6 is patentable under 35 U.S.C. § 103(a) over Dobrin et al in view of Weber et al and Boger et al for this additional reason.

Each of claims 14 – 20 requires using the slot coat adhesive process to apply the adhesive to the contacting peaks of the first flexible sheet material. However, the Boger et al substrate 64 is flat and not corrugated. These differences between the type of process described in Boger et al and the method of claims 14 – 20 contradict the 2-22-08 Final Office Action’s contention that using a slot applicator as in Boger et al to apply adhesive to a corrugated web of Dobrin et al would be obvious to one of ordinary skill merely because accurate placement of adhesive with a relatively simple system that requires little maintenance is suggested by Boger et al. Boger et al does not suggest that applying adhesive accurately and simply would be achieved by its apparatus if the substrate were to be corrugated and stretched rather than flat and unstretched. Instead, Boger et al is only concerned with reducing the amount of adhesive required to laminate one sheet to another “so that adhesive is not wasted where the leg holes are cut away.” Boger et al column 5, lines 34 – 35. Thus, unlike applicants, Boger et al is not concerned with application of adhesive only on the peaks of the corrugations, which

is a concern with the precise application of adhesive in registry with particular topographical features of the surface.

Applicants therefore respectfully submit that claims 1-11 and 13-20 are patentable under 35 U.S.C. § 103(a) over Dobrin et al in view of Weber et al and Boger et al.

For the reasons explained below, applicants respectfully traverse the rejection of claim 12 under 35 U.S.C. § 103(a) as being unpatentable over Dobrin et al, Weber et al and Boger et al, and further in view of Morman et al (U.S. Publication 2002/0119288A1).

The 2-22-08 Final Office Action contends that stretching of polymeric films before joining to other webs is well known and conventional in the laminating arts to make the film breathable. If this statement is taken as true, then one must ask the question why Dobrin et al did not bother to mention it in connection with stretching in the cross direction to create breathability, which Dobrin et al did mention at col. 20, lines 28-31, as asserted at page 5, lines 5 – 10 of the 2-22-08 Final Office Action. Moreover, this conclusion of the 2-22-08 Final Office Action ignores the other perhaps unwanted effects of stretching in the machine direction, which effects would be appreciated by persons of ordinary skill. Such effects include necking of the web that is being stretched in the machine direction. Because stretching in the machine direction has such necking effects known to persons of ordinary skill, it is not enough for the 2-22-08 Final Office Action to conclude that it would be obvious to do so in the context of applicants' claimed invention without showing why persons of ordinary skill would ignore these other effects and resort to stretching in the machine direction. Morman et al [0011] is not in the context of the present claims, for Morman et al [0011] is stretching a second flexible

sheet material to lend breathability to a film. However, in applicants' claims, it is the first flexible sheet material that is to undergo the stretching.

As Morman et al fails to correct the deficiencies noted above in Dobrin et al, Weber et al and Boger et al, applicants therefore respectfully submit that claim 12 is patentable under 35 U.S.C. § 103(a) over Dobrin et al in view of Weber et al and Boger et al, and further in view of Morman et al.

Applicants respectfully request reconsideration and reexamination of claims 1-20, as presented herein, and submit that these claims are in condition for allowance and should be passed to issue.

If any fee or extension of time is required to obtain entry of this Amendment, the undersigned hereby petitions the Commissioner to grant any necessary time extension and authorizes charging Deposit Account No. 04-1403 for any such fee not submitted herewith.

Respectfully submitted,

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